

N-63-4-3

⑤ 127 300

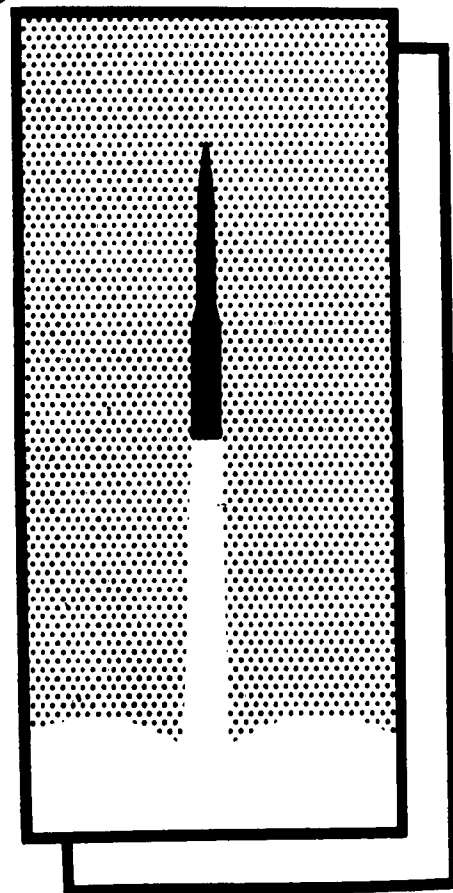
① 7-6-72

410550

AD No. \_\_\_\_\_

DDC FILE COPY

# MINUTEMAN



WS-133A

WING II

MONTHLY SUMMARY

REPORT NO. 3

410550

\$ 2.60

⑤ 127 300 ⑦ + ⑧ NA

⑥  
MINUTEMAN  
WS - 133A -  
WING II.

Upper Level

MONTHLY SUMMARY REPORT

⑨ Monthly Summary  
Sept. 1-31, 1-31 June

NIMBLE 3

⑪ 15 July 1963,

⑩ NA  
⑫ IV. ⑬ NA

⑭ NA

00012  
1000-000

⑮ - ⑰ NA

⑱ U

⑲ NA

Yde

⑮  
11/11/63 AF 04/647/757

DDC  
JUL 25 1963  
TISIA A

*Handwritten signature*

Weapon System 133A  
Vandenberg Air Force Base, California

WING II MONTHLY SUMMARY REPORT (1 JUNE - 31 JUNE 1963)

This report has been prepared in accordance with Statement of Work,  
VAFB Wing II Test Program, Contract AF O4(647)-757.

CONCURRENCE

*for* William R. Skelton  
W. R. SKELTON, Lt. Col.  
Asst. Test Director  
INTRACAD, SAC

John Case  
J. C. CASE  
Technical Advisor  
FTL

*for* Robert H. Schuman 74463  
R. H. SCHUMER  
Program Manager, wings II - V  
The Boeing Company

APPROVAL

G. G. Wicker  
G. G. WICKER, Lt. Col.  
Test Director  
6595th TW, AFSC

DISTRIBUTION

<u>AGENCY</u>	<u>ATTN</u>	<u>NO. OF COPIES</u>
The Boeing Company P.O. Box 6073 Santa Maria, California	R. C. Sellers	1
Commander 6595th Aerospace Test Wing Vandenberg AFB, California	Lt. Col. T. M. Gates	5
Thiokol Chemical Corp. Vandenberg AFB, California	T. Walker	2
Hercules Powder Corp. Bldg 5224 Vandenberg AFB, California	D.L.Kennicott	2
1STRATAD (DORM)	Lt. Col. Cushman	1
Hq. Chanute Tech Trng Cntr 3345 Technical School Chanute AFB, Illinois	Lt. Col. McCollum	1
Hq, Air Training Command Det. #15, 3764 School Sqdn Vandenberg AFB, California	Captain Augustine	1
Aerojet-General Corp Sacramento, California	V.R.Stober	1
Aerojet-General Corp Vandenberg AFB, California	J.L.Adams	1
Commander BSD (BSGOV) Norton AFB, California	Lt. Col. Stuber	1
STL P.O. Box 1627 Vandenberg AFB, California	C. South	5 plus 1 reproducible
Commander 394th Strategic Missile Sqdn Vandenberg AFB, California	Lt. Col. Higgins	3
AFLC Bldg 6201 Vandenberg AFB, California	Lt. Col. Poston	1

DISTRIBUTION (Continued)

<u>AGENCY</u>	<u>ATTN</u>	<u>NO. OF COPIES</u>
ASTIA Arlington Hall Station Arlington 12, Virginia		1
Autonetics Anaheim, California	C.W.Chapman	1
Autonetics Vandenberg AFB, California	R.L.Magers	2
AVCO 201 Lowell Street Wilmington, Mass	J.F.Bowen	1
AVCO Box 1887 Vandenberg AFB, California	J.P.Lund	2
The Boeing Company Seattle, Washington	J. Zabriskie	2
The Boeing Company Vandenberg AFB, California	L.G. Koszarek R.H.Schierman G.F.Bily D.B.Webendorfer J.M.Rounds R.M. LaBarron W.H.Jahn C. Fuller L. McNeely E. Slobodnick (2) M. Worley	12
File		4

## TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
1.0	Foreward .....	
2.0	Abbreviations .....	
3.0	Summary .....	
4.0	Test Operations Performed .....	
4.1	FTM 658-12 .....	
4.2	FTM 625-3 .....	
4.3	FTM 625-5 .....	
5.0	Status .....	
6.0	Test Requirements Status .....	
7.0	Recommendations .....	
8.0	Deficiency Status .....	

1.0

PURPOSE

This report is the test summary for the period 1 - 30 June 1963. It defines major test requirements, their degree of attainment, major program problems encountered and recommendations which may improve or accelerate the test program as defined in the Wing II VAFB Test Program Plan, BSD TR 63-29. It is not the purpose of this document to describe in detail each test performed, but rather, to report in general terms, the major test operations scheduled during the period, the major objectives attained during the period, and to describe briefly, the manner in which the program has progressed.

Test operations referenced in this report are defined in Section B, Wing II Basic Test Operations Plans, Documents D2-15307-1 (GTM 021), D2-15307-2 (FTM 658), and D2-15307-3 (FTM 625). Identification of test operations discussed in this report is provided in Section 5.0, Status, Figures 1, 2 and 3, Wing II Milestone Schedules for GTM 021, FTM 658 and FTM 625 respectively. Each schedule reflects the programmed and the actual date of accomplishment.

Test Requirements applicable to test operations performed during this report period are indicated in Section 6.1, Wing II Test Requirements Status.

## 2.0

ABBREVIATIONS

BSD	BALLISTIC SYSTEMS DIVISION (USAF)
CSA	CONTRACTOR SUPPORT AREA
CTLI	COMBAT TRAINING LAUNCH INSTRUMENTATION
DPIF/B	DESTRUCT PACKAGE INSTALLATION FACILITY/BUILDING
ECP	ENGINEERING CHANGE PROPOSAL
FTM	FLIGHT TEST MISSILE
GTM	GROUND TEST MISSILE
LF	LAUNCH FACILITY
MF	MUNITIONS FACILITY
MGS	MISSILE GUIDANCE SET
MSB	MISSILE STORAGE BUILDING/BUNKER
NCU	NOZZLE CONTROL UNIT
RSW	RANGE SAFETY WAFER
R/V	RE-ENTRY VEHICLE
SMSA	STRATEGIC MISSILE SUPPORT AREA
ST	SPECIAL TEST
T-E	TRANSPORTER-ERECTOR
T.O.	TECHNICAL ORDER
VAFB	VANDENBERG AIR FORCE BASE, CALIFORNIA
OO-06	LAUNCH FACILITY NUMBER 5
OO-07	LAUNCH FACILITY NUMBER 6



3.0

SUMMARY

The period covered by this report is from 1 June 1963 through 30 June 1963. Programming and actual performance of test operations is reflected in Section 5.0 of this report.

No formal testing was performed with Ground Test Missile (GTM) 021 during this period.

To provide adherence to Flight Test Missile (FTM) 658 launch schedule, BSD directed the interruption of programmed testing of GTM 021 as previously reported in Wing II Summary Report #2. GTM 021 was removed from the launch facility on 20 May 1963 and re-emplaced on 25 June 1963. To attain a missile posture from which testing could be resumed, the following functions were performed:

- (a) GTM 021 was roll transferred from the MSB to a T-E, transported to the DPIF, and roll transferred into DPIF #2.
- (b) The R/V and RSW underwent receipt inspection, assembly and checkout at the Munitions Facility (MF).
- (c) GTM 021, after CTLI cable installation, was roll transferred from DPIF #2 to a T-E, transported to LF #6 (00-07). GTM 021, the MGS and an R/V simulator were emplaced.
- (d) A special test (ST-II-1) for the purpose of verifying ECP 584-1, Plan D, (NCU motor and missile protection circuit) was accomplished utilizing a modified MGS and an R/V simulator.
- (e) Upon completion of the special test (ST-II-1), the missile was removed and returned to the DPIF #1 for the purpose of correcting a CTLI cable circuit.
- (f) GTM 021 was returned to (LF) 00-07 and missile, MGS/CTLI, RSW, and R/V emplacement was accomplished.

(g) Missile and autocollimator fine alignment, targeting and closed loop checkout were performed.

(h) Encoder-Decoder replacement and cable configuration hookup were accomplished.

These functions were performed for the purpose of verifying ECP 584-1, Phase D (d) and (e) above, and for attaining the necessary missile configuration to permit test resumption of GTM 021. Further reporting and evaluation of ECP 584-1 was performed by Boeing/Seattle.

Refurbishment of (LF) 00-07 (Test Operation 658-12) was accomplished and considered complete upon emplacement of GTM 021 in (LF) 00-07.

During the preceeding report period (28 May 1963) FTM 625 was placed in Missile Storage (MSB #4) wherein it presently remains. During the report period, receipt, inspection, assembly and checkout of the RSW and the R/V were performed at the Munitions Facility.

4.0 TEST OPERATIONS PERFORMED

The following test operations were performed during the month of June 1963 and are summarized herein.

4.1 Flight Test Missile (FTM) 658, Test Operation 658-12

This test operation consisted of post-launch and pre-emplacement refurbishment.

Programming

This test operation was performed at (LF) 00-07 and was considered terminated upon emplacement of GTM 021 insofar as FTM 658 testing was concerned.

Equipment

Seven (7) equipment deficiencies were observed during the test. Four of the deficiencies pertain to modification requirements of the suspension system and Load Test Fixture (ACO 216); two pertain to the procurement of special tools to aid in suspension system installation; and the remaining deficiency concerns parts serialization of equipment which undergo post-launch stress analysis.

Technical Data Status

Technical Orders used in the test had been validated and verified (V&V) at (LF) 00-06 just prior to this test and were not up-to-date. Several deficiencies were observed but it is expected that they will be eliminated by the V&V performed at (LF) 00-06. T.O.'s did not cover Wing II suspension system refurbishment.

Personnel Participation

Due to the nonavailability of Air Force personnel, this test operation was performed by contractor personnel.

4.2 Flight Test Missile (FTM 625), Test Operation 625-3

This test operation consisted of receipt, installation and checkout of the downstage CTII. Due to a requirement to process a Category III flight missile, it was necessary to interrupt the CTII installation, remove FTM 625 from the DFIF and place it in MSB #4. As of the end of this reporting period, this test operation remains incomplete.

4.3

Flight Test Missile (FTM) 625, Test Operation 625-5

This test operation consisted of receipt, inspection, assembly and checkout of the R/V and RSW. It was performed in the VAFB Munitions Facility (MF).

Programming

A test hold was experienced as a result of not being able to adjust the R/V Separation Connector mechanical lanyard in accordance with T.O. 11N-RV11-2A. A test waiver was approved by the Wing II Deputy for Plans and Evaluation authorizing a "work-around" procedure. This waiver did not detract from accomplishment of the specified test requirements. Upon test completion, the R/V and RSW were placed in storage.

Equipment

Equipment specified to support this operation was considered adequate.

Technical Data Status

T.O. 11N-RV11-2, used for this test operation, had been previously validated and verified. T.O. 11N-RV11-2A in the process of validation during the test operation, required submission of four AFTO 22's.

Personnel Participation

All phases of this test operation were accomplished by USAF personnel with contractor supervision.

5.0

STATUS

The following charts reflect the programming of test operations for each missile. In addition, superimposed upon the original schedule is the actual performance period for each test operation.

(a) Figure 1 - GTM 021

(b) Figure 2 - FTM 658

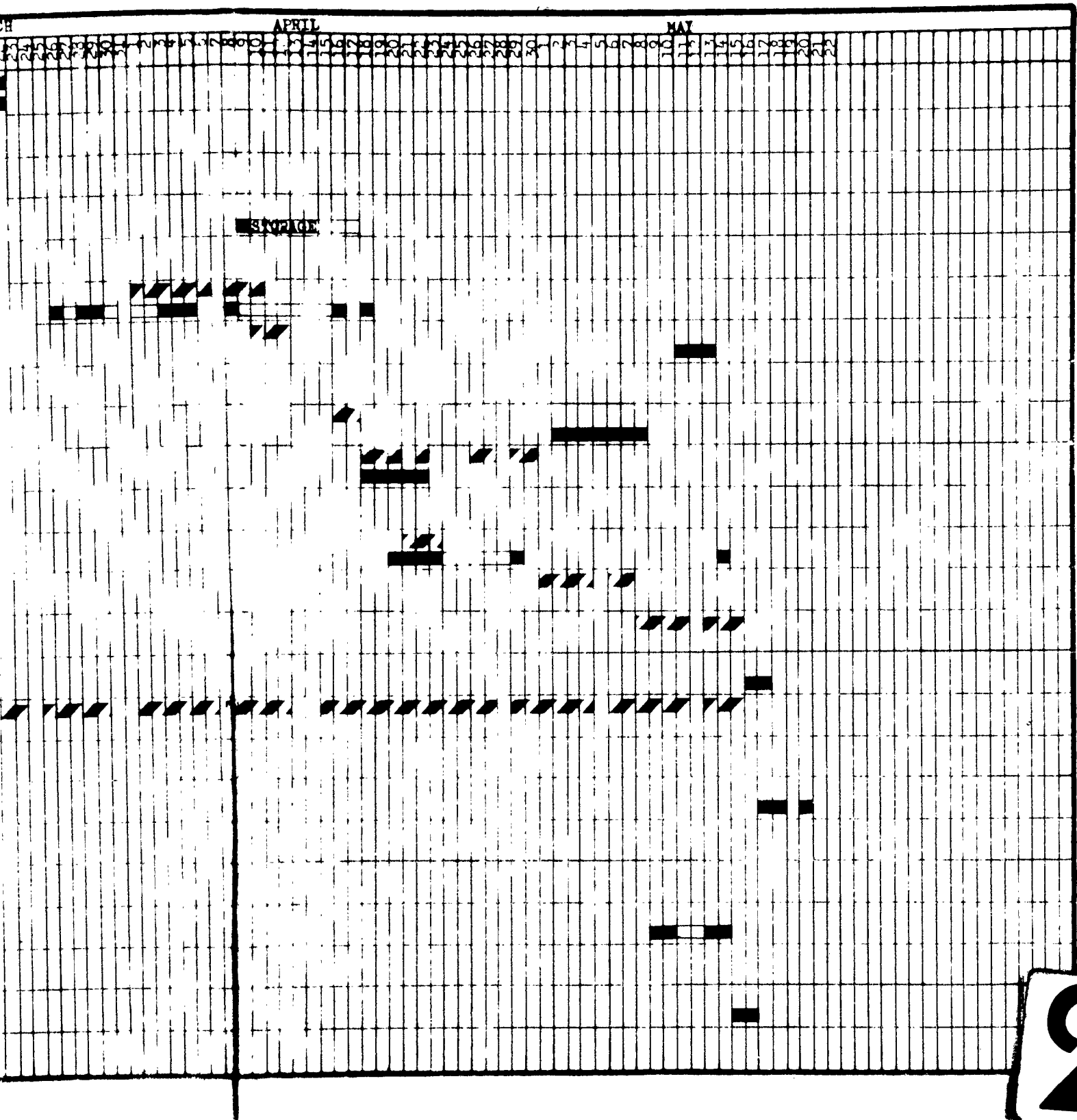
(c) Figure 3 - FTM 625



1

DATE: **///** SCHEDULED ☐ TEST HOLD OR STORAGE

# E PROCESSING SCHEDULE - GTM 021



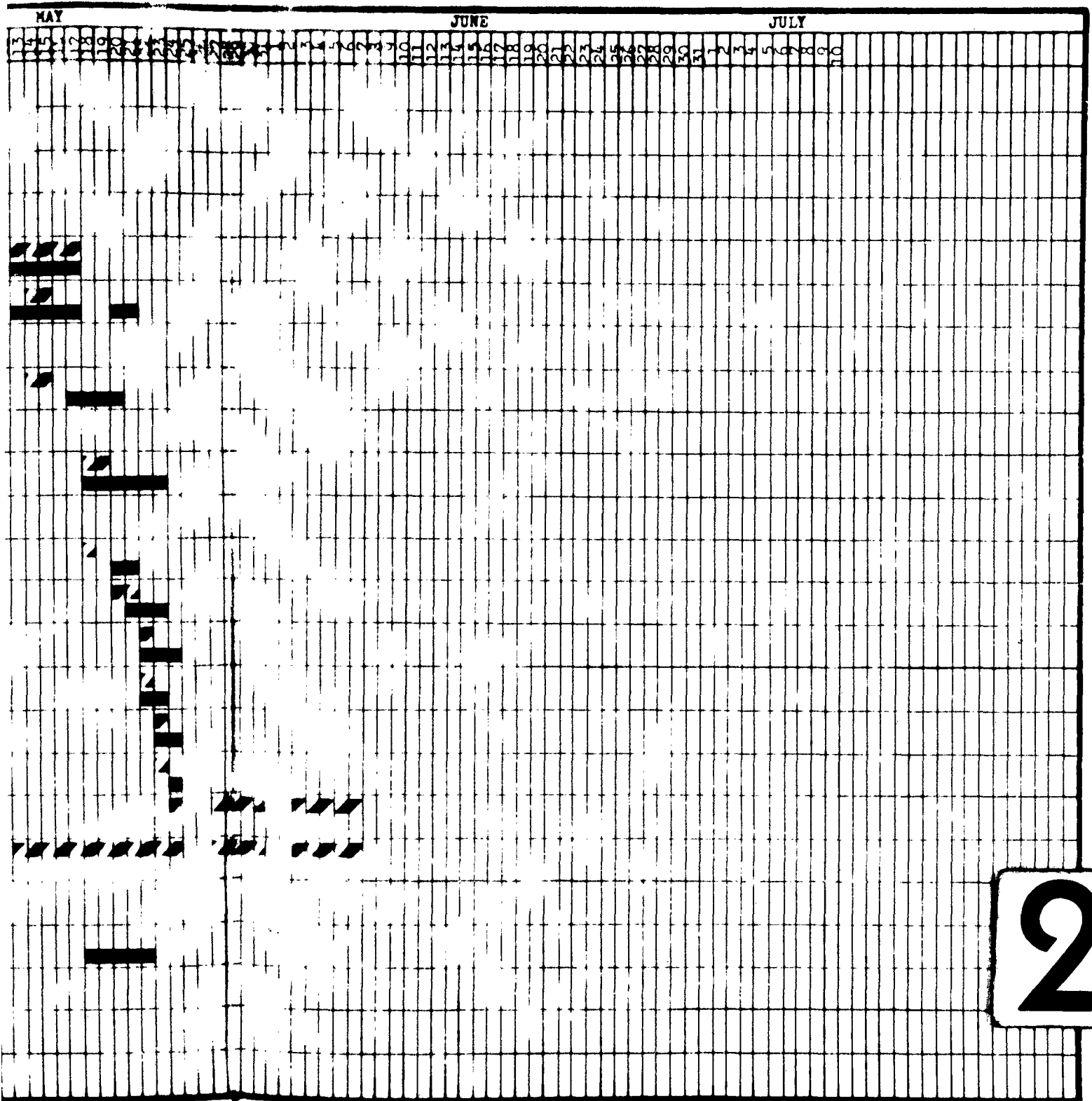
# WING 11 MISSILE PROCESSING

		MAY	
NO	OPERATION	AFR	
658-1B	RECEIVE MISSILE BY RAIL (IN AN SSCBM), TRANSFER SSCBM TO BMT,		
	TRANSPORT TO MSB/DPIB, ROLL TRANSFER MISSILE, SSCBM, TO MSB/DPIB		
658-2	ROLL TRANSFER MISSILE, MSB TO T-E, TRANSPORT TO DPIB, ROLL TRANSFER		
	MISSILE, T-E TO DPIB		
658-3	RECEIVE, INSTALL AND CHECK OUT DOWNSTAGE CTLI		
658-4	RECEIVE MGS AND CTLI, CHECKOUT, MATE, AND PERFORM INTEGRATED CHECKOUT OF MGS/CTLI		
658-5	RECEIVE, INSPECT, ASSEMBLE, AND CHECKOUT RE-ENTRY VEHICLE, AND RANGE SAFETY WAFER		
658-6	ROLL TRANSFER MISSILE, MSB/DPIB TO T-E, TRANSPORT TO LF, EMPLACE IN LF, INSTALL MGS/CTLI, RSW AND R/V		
658-7	ENCODER-DECODER REPLACEMENT AND CABLE CONFIGURATION HOOK-UP		
658-8	ALIGNMENT, TARGETING AND CLOSED LOOP CHECKOUT		
658-9	POST-EMPLACEMENT REFURBISHMENT AND MISSILE SAFING PIN REMOVAL		
658-10	LAUNCH OPERATIONS (R-1 DAY)		
658-10A	FINAL LF & LCF LAUNCH PREPARATION AND LF ENABLING		
658-11	LAUNCH OPERATIONS (R-0 DAY)		
658-12	POST-LAUNCH AND PRE-EMPLACEMENT REFURBISHMENT		
658-13	UNSCHEDULED MAINTENANCE		
	ADDITIONAL TEST OPERATIONS		
658-12 SUPPLEMENT	INITIAL LF PRE-EMPLACEMENT REFURBISHMENT.		

Di  SCHEDULED  
 ACTUA



# PROCESSING SCHEDULE - FTM 658



# WING II MISSILE PROCESSING

		MAY												JUNE											
NO	OPERATION																								
625-1A	RECEIVE MISSILE BY RAIL (IN AN SSCBM) OFFLOAD, TRANSPORT TO MSB/DPIB, ROLL TRANSFER MISSILE, SSCBM TO MSB/DPIB																								
625-3	RECEIVE, INSTALL AND CHECKOUT DOWNSTAGE, CTLI																								
625-4	RECEIVE MGS AND CTLI, CHECKOUT, MATE AND PERFORM INTEGRATED CHECKOUT OF MGS/CTLI																								
625-5	RECEIVE, INSPECT, ASSEMBLE, AND CHECKOUT RE-ENTRY VEHICLE & RANGE SAFETY																								
625-6*	ROLL TRANSFER MISSILE, MSB/DPIB TO T-E TRANSPORT TO LF, EMPLAC IN LF, INSTALL MGS/CTLI, RSV AND RV																								
625-7*	ENCODER-DECODER REPLACEMENT AND CABLE CONFIGURATION CHECKOUT																								
625-8*	ALIGNMENT, TARGETING, AND CLOSED LOOP CHECKOUT.																								
625-9*	POST-EMPLACEMENT REFURBISHMENT AND MISSILE SAFING PIN REMOVAL.																								
625-10*	LAUNCH OPERATIONS (R-1 DAY)																								
625-10A*	FINAL LF & LCF LAUNCH PREPARATION AND LF ENABLING.																								
625-11*	LAUNCH OPERATIONS (R-0 DAY)																								
625-12*	POST-LAUNCH AND PRE-EMPLACEMENT REFURBISHMENT.																								
625-13	UNSCHEDULED MAINTENANCE.																								
	<u>ADDITIONAL TEST OPERATIONS</u>																								
625-2A	ROLL TRANSFER MISSILE, DPIB TO T-E, TRANSPORT TO MSB, ROLL TRANSFER MISSILE, T-E TO MSB.																								

**LEGEND:**



**SCHEDULED**

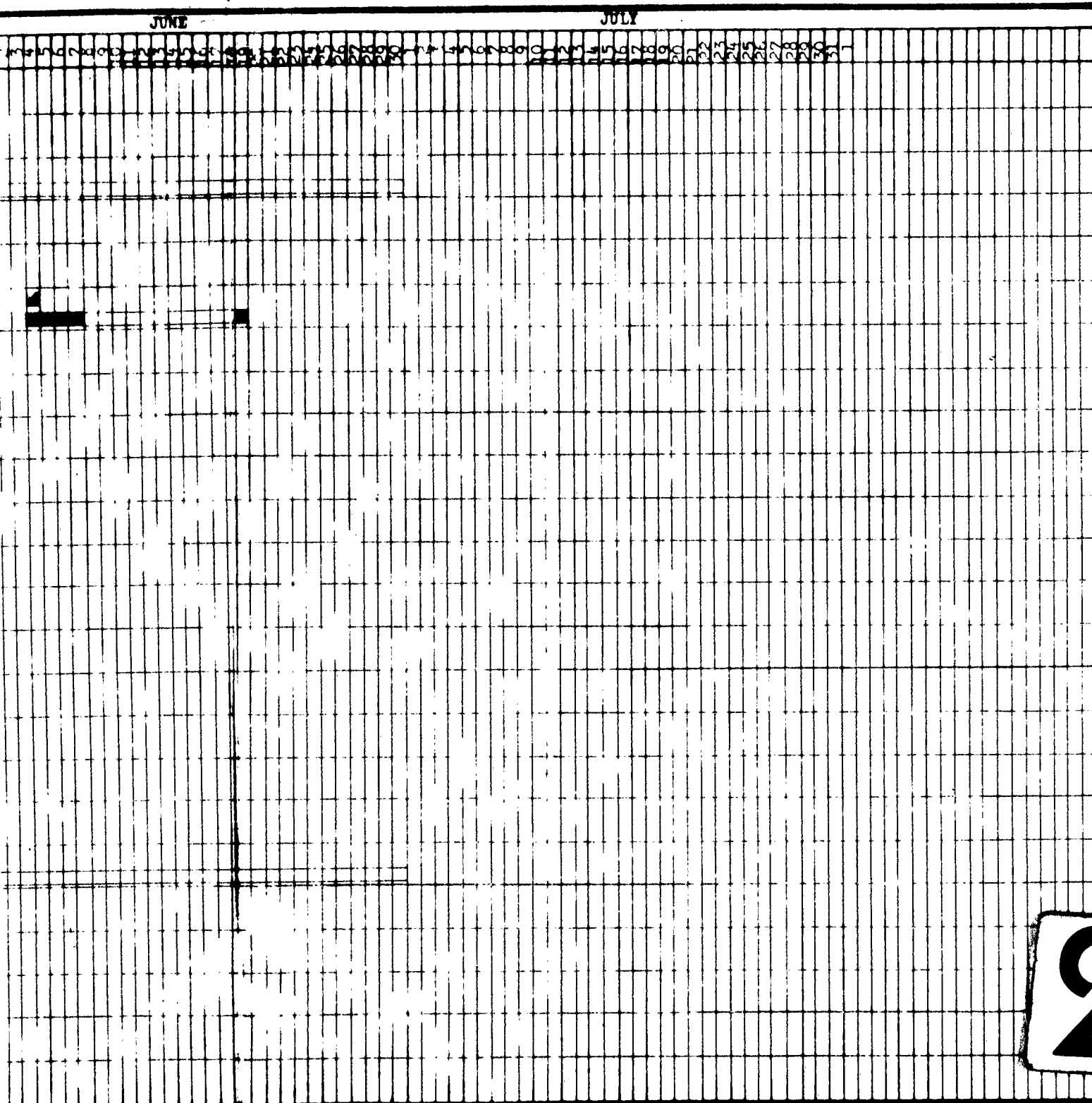
11

TEST HOLD OR MISSILE STORAGE

CAN NOT BE SHOWN DUE TO SECURITY

CLASSIFICATION (TO BE RETURNED TO WHEN DE-QIA'ISHED)

# PROCESSING SCHEDULE - FTM 625



2

STORAGE  
TO SECURITY  
IT TO WHEN REQUIRED

15

6.0

TEST REQUIREMENTS STATUS

The following chart indicates the accomplishment of the test requirements specified in TR-BSD-63-29, Volume II. The number of blocks to the left of the heavy line indicate the number of times each test requirement must be performed to satisfy Wing II Program Test Objectives. The tabulation contained in the right hand portion of the chart reflects the test requirements waived, the test requirements yet to be performed, the test requirements actually performed, and the total number of performances necessary to satisfy the requirements set forth in TR-BSD-63-29, Volume II.

# WING II TEST REQUI

TEST REQUIREMENT			TEST OF			
1	SCHEDULED	2.1.1	R/V Assembly and Checkout	021-5		
		2.1.2	Load R/V and Transport to LF	021-6	658-6	
		2.1.3	Load and Transport MGS (MSA to LF)			
		2.1.4	MGS Transportation (LF to MSA)	021-6A		
		2.1.6	LF Preparation for Missile Emplacement	021-6	021-6A	658-6
		2.1.7	Missile Emplacement	021-4	658-6	
		2.1.8	MGS Emplacement			
		2.1.9	R/V Emplacement	021-6	021-11A	658-6 658-7
		2.1.10	Missile and Collimator Alignment	021-7	021-7A	658-8
		2.1.11	Missile Start-up and Targeting Sequence	021-7	021-1A	658-8
		2.1.13	MGS Removal			
		2.1.14	R/V Removal	021-6A	021-11A	658-13I
		2.1.15	Missile Removal	021-6A		
		2.1.16	Retargeting Operations			
		2.1.17	Encoder-Decoder Replacement Operations	021-11E	658-7	
		2.1.19	Transport R/V to MF, Disassemble, Prep. Shipment	021-6A		
	UNSCHED	2.2.1	LCF Maintenance			
		2.2.2	MSA Maintenance (Component)	021-11E	658-7	
		2.2.3	MSA Maintenance (Vehicle)			
		2.2.4	LF Maintenance (AGE)			
		2.2.5	LF Maintenance (Airborne Equipment)	658-13I		
		2.2.6	Perform Proof Load Facility MGF Checkout			
	UNCLASSIFIED	2.3.1	Missile Transport & Unload (Receiving to DPLF)	021-1E	658-1E	625-1A
		2.3.2	Missile Transport & Unload (LF to DPLF)			
		2.3.3	Missile Transport & Unload (LF to Msl. Stor.)	021-6A	021-6A	628-2A
		2.3.4	Missile Load & Transport, (DPLF to LF)	021-6A	021-4	658-6 625-2A
		2.3.7	MGS/CTLI Load & Transport, (MSA/CSA to LF)	021-6	658-6	
		2.3.8	CTLI Unit Checkout & Preparation for Mating	021-4	658-4/4A	658-4B
		2.3.9	MGS Preparation & Checkout for Mating	021-4	658-4A	658-4B
		2.3.10	MGS-CTLI Mating & Integrated Checkout	021-4	658-4A	658-4B
		2.3.11	Installation and Checkout Downstage CTLI Comp.	021-7	658-3	
		2.3.12	MGS/CTLI Emplacement	021-6	021-11A	658-6
		2.3.14	CTLI Downstage Component Removal			
		2.3.15	MGS/CTLI Removal	021-6A	021-11A	

The number of boxes to the left of the heavy line is the number of performances required by BSD-TR-63-29. The numbers within the boxes identify these operations during which the test requirements were performed.

# TEST REQUIREMENT STATUS

TEST OPERATION NO				Requirements Waived	Requirements Outstanding	Times Performed	Times Required
021-5					1		1 GTM
021-6	658-6					2	1 GTM
					1		1 GTM
021-6A					0	1	1 GTM
021-6	021-6A	658-6			1	3	4
021-6	658-6				2	2	4
					1		1 GTM
021-6	021-11A	658-6	658-13I		2	3	5
021-7	021-7A	658-8			1	3	4
021-7	021-1A	658-8			1	3	
					1		1 GTM
021-6A	021-11A	658-13I			0	2	2 GTM
021-6A					0	1	1 GTM
					1		1
021-11E	658-7				1	2	3
021-6A					1	1	2 GTM
						2	As Req.
021-11E	658-7						As Req.
							As Req.
							As Req.
658-13I							As Req.
					1		1
021-1E	658-1E	625-1A			1	3	4
							As Req.
021-2E	021-6A	628-2A				3	1 GTM
021-2A	021-6	658-6	625-2A		0	4	4
021-6	658-6				2	2	4
021-4	658-4/4A	658-4B			1	3	4
021-4	658-4A	658-4B			1	3	4
021-4	658-4A	658-4B			1	3	4
021-3	658-3				2	2	4
021-6	021-11A	658-6			1	3	4
							As Req.
021-6A	021-11A				0	2	1 GTM

2

performances  
use operations

SUB TOTALS:

24 52 71

# WING II TEST REQUIRE

TEST REQUIREMENT				TEST OF						
1	OPERATIONS	CATI	CTL	2.3.16	MLG/CTLI Activation	021-4				
				2.3.17	CTLI Preparation for Countdown	021-10	658-10	658-11		
				2.3.18	CTLI Closed Loop Checkout	021-7A	021-10	658-8		
				2.3.19	Preparation for Open Loop Checkout (Ground Power)	658-10	658-11			
				2.3.20	Open Loop Checkout (Ground Power)	021-10	658-10	658-11		
				2.3.21	Preparation for Open Loop CTL (Airborne Power)	021-10	658-11			
				2.3.22	Open Loop Checkout (Airborne Power)	021-10	658-11			
				2.3.23	CTLI Maintenance					
				2.3.24	LF Refueling	658-12 (Supplement)	658-12			
				2.3.25	Secure LF & Verify Missiles on Strategic Alert	658-9	658-10A			
				2.3.27	Receive & C/O Downstage CTIL Components	658-3				
				2.3.28	Receive CTIL Unit & Transport to SMOA/LNA					
				2.3.29	Remove Range Safety Wafer	658-13I				
				2.3.30	Remove Range Safety Wafer	021-11A	658-6	658-13I		
				2.3.31	Receive, Inspect & C/O RV & RSM	021-5	658-5	625-5		
	OPERATIONS	CATI	CTL	OPS	3.1.1	"Test" Operations	021-7	021-7A	658-11	
					3.1.2	ACN Test Operations		021-7A	021-10	021-1
					3.1.3	"Calibration" Operations	1-7	021-7A		
					3.1.4	Coordinating and Testing Operations		021-7A	021-10	658-8
					3.1.11	Launch Ops #1 - Flight Performance				
					3.2.1	CTLI Launch Contention	021-10	658-11		
					3.2.2	CTLI Launch & Missile Interference	658-11			
					3.2.3	Missile Flight	658-11			
					4.1.1	Launch Control Operations - 1st Gen				
					4.1.2	Launch Control (Missile) Interference Test				
					4.1.3	Launch Ops #2 - Field Performance	...			
					4.1.4	Launch & Security Subsequent to Launch				
					4.1.5	Launch Ops #3 - Flight Performance				
					Special Test		Confidence Test performed per BSD Coordination Bulletin			VWTM 73
					...		Accomplished (modified) by direction of BSD Coordination Bulletin			VWTM 79

The number of boxes to the left of the heavy line is the number of performances required by BSD-TR-63-29. The numbers within the boxes identify those operations during which the test requirements were performed.

FORM TT 0





7.0

RECOMMENDATIONS

As a means of providing training and experience to USAF personnel, it is recommended that USAF participation in the performance of test operations be increased.

As evidenced in the post-launch refurbishment of (LF) 00-07, technical orders which apply specifically to the Wing II configured weapon system require verification and validation. Other technical orders common to Wing I and Wing II require updating. It is recommended that action be expedited to accomplish the foregoing.

8.0

DEFICIENCY STATUS

The attached chart is a cumulative summary of all deficiencies noted during the performance of test operations. They include: Equipment (E), Technical Orders (T.O.), Human Engineering (HE), Safety (S), Training (T), and Personnel Requirements (P) deficiencies.

**ISSUE  
DATE:**

**EQUIPMENT  
DEFICIENCY STATUS**

Deficiency Report No.	Abstract of Deficiency	Test No.	T.R. No	Fig. A Reference	T.C. Refer
E-1	Suspected inadequate emergency lighting in Munitions Facility bay area	021-5	2.1.1 2.3.31		
E-2	Lack of torque wrench crowfoot adapter for torquing in-flight separation connector switch in RSW.	021-5	2.1.1 2.3.31	6146	11N-FV
E-3	K/V shipped small packaged hardware shortages	021-5	2.1.1 2.3.31		
E-4	Shorting plugs were not supplied with attitude control rockets and sub	021-5	2.1.1 2.3.31		11N-FV
E-5	Space restriction in torquing one of the K/V Spacer Ball locknuts	021-5	2.1.1 2.3.31	6146	11N-FV
E-6					
E-7	C-Band Beacon signal strength varied from 0 to 36 db.	658-10	2.1.20		21-SM
E-8	Loose station "A" hold down mounting studs.	658-8	2.1.10		21-SM
E-9	Wing II MRF "B" Tape not yet committed by Change Board (Anaheim). Wing I tape substituted.	658-4	2.1.2	10910	21-SM 2-1
E-10	SE-35 Cable 1 inch too short	658-4	2.3.8	6 15	21-SM 2-1
E-11	Nutplate inserts fail during raceway cover alignment	658-3	2.3.11	6604	21-SM 2-1
E-12	During transfer of MCBM from aircraft to EMT, the rear ski guide on MCBM hit guide rail on EMT.	658-18	2.3.1		
E-13	Configuration of CHH umbilical bracket on Pose Adapter Ring made mating impossible.	658-6	2.3.12	1458	21-SM 2-1
E-14	Ground strap to ground M&C section to third stage engine was too short	658-6	2.1.8	None	21-SM 2-1
E-15	Special sheave-removal tool (P/N 29-24859) not available for test.	658-12	2.3.24	1322.2	21-SM 2-1
E-16	Installation and removal time for the suspension system is unnecessarily long.	658-12	2.3.24	1322.2	21-SM 2-1
E-17	Clearance between gusset plates at base of suspension spring cone is too small to allow removal of tie-down bolts with standard socket wrench.	658-12	2.3.24	1322.2	21-SM 2-1
E-18	Connector on power cable for cart would not mate with 220V outlet at top of launch tube.	658-12	2.3.24	None	33A-2

**1**

2-8500-18

## EQUIPMENT

## EFFICIENCY STATUS REPORT

SECTION: I  
PAGE: 1

Test No.	T.R. No	Fig. A Reference	T O Reference	Recommendation / Status	Resulting Action
021-5	2.1.1 2.3.31			AVCO Engineering investigating.	
021-5	2.1.1 2.3.31	6146	11A-FV11-2A	Item will be on hand for future tests.	
021-5	2.1.1 2.3.31			Shortages filled from Spares inventory	NAR
021-5	2.1.1 2.3.31		11N-FV11-2	Shorting plugs should be supplied for proper training.	NAR
021-5	2.1.1 2.3.31	6146	11N-FV11-2	Failure Report filed; recommendation to increase space or reduce wrench size.	
658-10	2.1.20		21-SM80A-1-1	Additional wing II investigation in progress.	
658-8	2.1.10		21-SM80A-2-1	Boeing MBF 950 - Replaced concrete securing the plate studs.	
658-4	2.3.8	10910	21-SM80A-2-17-1	ECF substitute (7349). No EOL established.	
658-4	2.3.8	6 15	21-SM80A-2-17-1	AFTC 27 (W11/1F-63-2) has been submitted.	APPROVED
658-3	2.3.11	6604	21-SM80A-2-17-1	A heavier nutplate assembly should be used in this area.	
658-1F	2.3.1			Further evaluation is required.	
658-6	2.3.12	1252	21-SM80A-2-22	IC ECP 639 initiated.	
658-6	2.1.8	None	21-SM80A-2-22	Further evaluation will be made.	
658-12	2.3.24	1322.2	21-SM80A-2-18-1	Action will be initiated to procure special tool.	
658-12	2.3.24	1322.2	21-SM80A-2-18-1	Provide an access hole so that torsion bars and tie rods can be connected easily.	
658-12	2.3.24	1322.2	21-SM80A-2-18-1	Increase the dimension between nutset plate and tie-down bolts so that standard socket can be used.	
658-12	2.3.24	None	33-2-6-51	Power cable should be provided to allow power for cart to be taken from receptacle at top of launcher.	

2



# EQUIPMENT EFFICIENCY STATUS REPORT

**PAGE : 2**

# DEFICIENCY <sup>HUMAN ENG:</sup> STAT

2-8500-169





ISSUE  
DATE:

TECHNICAL O  
DEFICIENCY STATI

Deficiency Report No	Abstract of Deficiency	Test No.	T.R. No.	Fig A Reference
T.O.-1	T.O. does not contain instructions for ILCO to query VRSA and report channels to LD	658-11	3.1.13	
T.O.-2 (E-10)	Fig.4-9 of T.O. is incorrect as drawn with regards to inset drawing of the output cable instl.	658-4	2.3.10	
T.O.-3	Vent pipe per para. 3-17c cannot be repositioned per T.O. as pipe is in one piece	658-12	2.3.24	
T.O.-4	VAFB operations sometimes require removing CTLI batteries while missile is in LP. T.O. procedures are non-existent.	021-6A	2.1.15	
T.O.-5	TO versus System Design Criteria re. R/V Test Set Power Supply voltage tolerances	021-5	2.1.1 2.3.31	
T.O.-6	T.O. is vague in procedure for adjusting R/V Spacer mechanical lanyard	021-5	2.1.1 2.3.31	6146
T.O.-7	T.O. versus Design Criteria re. installation of Separation Event Switch in R/V Spacer	021-5	2.1.1 2.3.31	6146
T.O.-8	T.O. incorrectly identifies R/V Fairing and Body as being Stainless Steel	021-5	2.1.1 2.3.31	6144 6166
T.O.-9	T.O. should call out inspection of Separation Connector tapped hole for barb.	021-5	2.1.1 2.3.31	6139
T.O.-10	Access doors from R/V Spacer should be placed in bags when removed	021-5	2.1.1 2.3.31	6146.
T.O.-11	T.O. para. 2-64, step "p" should call out retraction of R/V Pallet handle	021-5	2.1.1 2.3.31	905
T.O.-12	Removal of Transport Monitor System from missile after roll transfer per T.O. is not compatible with Spec. S-133-11-0-1 and Form B, Drwg. 25-27001, function 3.3.	-18		4187
T.O.-13	Lack of torque wrench or adapter does not allow torquing 500-600 in.lbs. as called for in note in Fig. b-33 applying to rail retainers	658-6	2.1.7	038
T.O.-14	Fig. 3-8d does not agree with ALCN's S-8 and S-10 of drawing 25-37237, Sheet 2.	658-3	2.3.11	6306
T.O.-15	T.O. doesn't show ramps installed on II-III interstage.	658-3	2.3.11	6306
T.O.-16	Near fitting part number is omitted from Item 27 of Fig. 3-10.	658-3	2.3.11	6306
T.O.-17	Application of BMS-5-62 to bolts is called out incorrectly.	58-3	2.3.11	6306



2-8500-169

TECHNICAL ORDERS

SECTION: III

**EFFICIENCY STATUS REPORT**

PAGE : 1

Test No.	T.R. No.	Fig A Reference	T.O Reference	Recommendation / Status	Resulting Action
658-11	3.1.13		21-SM80A-1-1	AFTO 22 WII/TF-63-1 submitted.	DISAPPROVED
658-4	2.3.10		21-SM80A-2-17-1	AFTO 22 WII/TF-63-2 submitted.	APPROVED
658-12	2.3.24		21-SM80A-2-18-1	AFTO 22 WII/TF-63-3 submitted. Held for BPTC review.	
021-6A	2.1.15		21-SM80A-2-17-1	AFTO 22 WII/TF-63-4 submitted.	APPROVED
021-5	2.1.1 2.3.31		11N-RV11-2	AVCO Technical Publications and Engineering investigating.	
021-5	2.1.1 2.3.31	6146	11N-RV11-2	AVCO Technical Publications investigating.	
021-5	2.1.1 2.3.31	6146	11N-RV11-2A	AVCO Technical Publications investigating.	
021-5	2.1.1 2.3.31	6144 6166	11N-RV11-2	T.O. corrected via TOCN #8.	NAR
021-5	2.1.1 2.3.31	6139	11N-RV11-2	Normal QC inspection should eliminate need; AVCO Tech. Publications investigating.	
021-5	2.1.1 2.3.31	6146	11N-RV11-2	AVCO Technical Publications investigating.	
021-5	2.1.1 2.3.31	905	11N-RV11-2	AFTO 22 Avco-VAFB 63-19 submitted.	
-1B		4187	21-SM80A-2-17-1	AFTO 22 WII/TF-63-5 submitted. Held for BSOOP resolution.	
658-6	2.1.7	038	21-SM80A-2-2	AFTO 22 WII/TF-63-6 submitted.	
658-3	2.3.11	6306	21-SM80A-2-17-1	AFTO 22 2-8561-13-102 submitted.	
658-3	2.3.11	6306	21-SM80A-2-17-1	AFTO 22 2-8561-13-103 submitted.	
658-3	2.3.11	6306	21-SM80A-2-17-1	AFTO 22 2-8561-13-104 submitted.	APPROVED
58-3	2.3.11	6306	21-SM80A-2-17-1	AFTO 22 2-8561-13-105 submitted.	APPROVED

**2**

APPROVED

## TECHNIC

**STA**

1

# EFFICIENCY STATUS REPORT

PAGE : 2

	Test No	TR No	Fig. A Reference	T.O Reference	Recommendation / Status	Resulting Action
4	658-3	2.3.11	6306	21-SM80A- 2-17-1	AFTC 22 2/8561-13/107 submitted	APPROVED
	658-3	2.3.11	6306	21-SM80A- 2-17-1	AFTC 22 2-8561-13-1.6 submitted.	APPROVED
ag				21-SM80A- 2-22	Further evaluation will be made.	
ion	625-5	2.3.31	6167	11N-PV11-2A	AVCO Technical Publications investigating.	
ion	625-5	2.3.31	6167	11N-KV11-2A	AVCO Technical Publications investigating.	
	625-5	2.3.31	6146	11N-RV11-2A	AVCO Technical Publications investigating	
	658-8	2.1.10	602	36A12- 3-14-1	AFTC 22 A/N P-TH-1007 submitted.	
	658-12	2.3.24		21-SM80A- 2-6	AFTC 22 WII/TF-63-7 has been submitted.	
	658-12	2.3.24		21-SM80A- 2-18-1	Add procedures for leveling and loading testing pro- cedure given in D-ELEL-2.	
ur- fy	658-12	2.3.24			Add note to ... procedures stating that each incre- ment on the level represents three minutes.	
				</		

## SAFETY

**ISSUE  
DATE:**

## DEFICIENCY STATUS

[illegible]

# EFFICIENCY STATUS REPORT

**PAGE : 1**

[illegible]

TRAIN



1

2-8500-169

**SECTION:** V  
**PAGE :** 1

[illegible]